UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/564,100	02/24/2006	Valentino Mercati	2503-1193	7193

466 7590 04/26/2010

YOUNG & THOMPSON
209 Madison Street
Suite 500
Alexandria, VA 22314

EXAMINER	
FELTON, MICHAEL J	
ART UNIT	PAPER NUMBER
1791	

NOTIFICATION DATE	DELIVERY MODE
04/26/2010	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

DocketingDept@young-thompson.com

Office Action Summary	Application No.	Applicant(s)	
	10/564,100	MERCATI, VALENTINO	
	Examiner	Art Unit	
	MICHAEL J. FELTON	1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 January 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *24-40 and 47* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *24-40 and 47* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 26-30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. Claim 27 recites the limitation "the solvent mixture" in line 2. There is insufficient antecedent basis for this limitation in the claim. Claim 25 limits the claim to “the solvent” and does not provide basis for “the solvent mixture.”

Response to Arguments

4. Applicant's arguments filed 1/25/2010 have been fully considered but they are not persuasive.

5. The applicant amended claim 27 to correct the antecedent basis issue with the phrase "wherein the solvent mixture is...". Claim 27, which is now dependent on claim 25, continues to have insufficient antecedent basis. The examiner suggests deleting the word “mixture" and making the phrase in claim 27 read, "wherein the solvent is an ethanol/water mixture…”.

6. In response to applicant's argument that the references fail to show certain features of applicant’s invention, it is noted that the features upon which applicant relies

(i.e., use of any kind of enzyme is not foreseen) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

7. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

8. The applicant argues that Kierulff et al. do not teach drying and curing tobacco before extraction. The examiner disagrees. As indicated in the prior office action, Kierulff et al. indicate that the material used is **flue cured Virginia Tobacco**, which by definition has been cured. Furthermore, it is notoriously well known in the art that the process of flue curing includes drying of the tobacco (i.e. removing moisture from the leaf). For instance, the definitions cited in the prior action (see DIMON tobacco glossary, “flu curing”) include the following definition of flu curing:

> **flue curing** One of the four main methods of *curing*, which involves **removing all of the natural sap and moisture from tobacco leaves**. This method of curing only uses artificial heat, such as that provided by oil or petroleum. Flue curing barns are outfitted with pipes that supply the heat and fans that circulate the heat for even distribution. (emphasis added)

9. The applicant argues that the process produces a product with unexpected results due to the specific process steps and the specific order in which they are carried out. However, it is unclear what properties are unexpected and the applicant should

note that the order of the process steps is not claimed (the steps as currently claimed can take place in any order).

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

10. Claims **24-36 and 47** are rejected under 35 U.S.C. 103(a) as being unpatentable over Kierulff et al. (US 6,298,859) in view of Wochnowski et al. (US 3,265,209).

11. Regarding claims **24-34**, Kierulff et al. teach solvent extraction of tobacco leaves (including flue cured Virginia tobacco (i.e. *Nicotiana tabacum)*, col. 20, lines 49-51) using 30-100% water and ethanol (col. 3, line 61--col. 4, line 58) in amounts of 5-200 times the weight of tobacco to be treated, at temperatures of 10-80° C for 5 minutes to 24 hours (col. 5, 31-45). After the extract is separated from the tobacco reside (i.e. extracted tobacco leaves), further treatment such as drying is performed (col. 6, 11-12).

12. Kierulff et al. do not expressly disclose elimination of the ribs. However, Wochnowski et al. disclose a method and apparatus for elimination of the ribs from the tobacco. It would have been obvious to one of ordinary skill in the art at the time of invention to use the method and apparatus of Wochnowski et al. either before or after extraction process of Kierulff et al. in order to provide a lighter blend of tobacco particles for smoking articles. Wochnowski et al. disclose that the process is used to allow different mixtures of tobacco to be produced, "including lighter and/or heavier particles of different specific weight, moisture contents, configuration, thickness, flexibility or

other characteristics" (col. 1, 46-49). It would have been obvious to one of ordinary skill that the rib portions have different characteristics as taught by Wochnowski et al. and could be separated by the method disclosed.

13. Regarding claim **35 and 36**, Kierulff et al. disclose extraction treatment one time using the extraction solvent.

14. Regarding claim **40**, Kierulff et al. disclosing using Virginia tobacco. Virginia tobacco is also known as bright tobacco, therefore Kierulff et al. disclose treating the same starting material (see also DIMON tobacco glossary, "bright leaf").

15. Regarding claim **47**, Kierulff et al. disclose using buffers that would adjust the pH of the solvent (col. 11, line 65--col. 12, line 4; and).

16. Claims **37-39** are rejected under 35 U.S.C. 103(a) as being unpatentable over Kierulff et al. (US 6,298,859) and Wochnowski et al. (US 3,265,209) as applied to claim 24 above, in further view of Clapp et al. (US 4,941,484).

17. Regarding claims **37**, although Kierulff et al. teach that drying is performed (col. 6, 11-12) after the extract is removed from the tobacco residue, the type of drying and conditions are not disclosed. Clapp et al. also do not disclose the particular drying technique used but indicate that after an extraction process:

18. It often is convenient to dry the treated tobacco residue prior to the time that the aqueous solution of extracted components is applied thereto. For example, the treated tobacco residue in the form of strip or cut filler, or which is reformed using a reconstitution process, can be dried to a moisture level of less than about 15 weight

percent; and then the aqueous solution of extracted tobacco components can be applied thereto. As another example, a papermaking technique for providing reconstituted tobacco can be employed (i.e. the treated tobacco residue can be formed into a sheet, the treated tobacco extract can be sprayed onto the sheet and the resulting mixture is dried)…Manners and methods for drying the treated tobacco residue and the treated tobacco extract applied thereto will be apparent to the skilled artisan. Typically, the treated tobacco residue and treated extract combined therewith are dried to a moisture level of about 12 to about 13 weight percent for used as a smokable reconstituted tobacco material (col. 7, 6-30).

19. Although Clapp et al. do not expressly disclose drying under vacuum, drying for 36-48 hours, or drying at 35 C, it would have been obvious to use reduced pressure (i.e. vacuum), increased heat, or long time periods to dry wet material. These methods of drying are well known to one of ordinary skill (vacuum filtration), as well as lay people (for instance drying laundered clothing with heat (clothes dryer) or extended time (on a clothes line). It would have been obvious to one of ordinary skill to apply these well known methods to drying the tobacco because both Kierulff et al. and Clapp et al. teach the importance of drying, and one of ordinary skill would be aware that wet tobacco would not be useful in conventional end products (i.e. smoking articles).

Conclusion

20. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL J. FELTON whose telephone number is (571)272-4805. The examiner can normally be reached on Monday to Friday, 7:30 AM to 4:30 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Phillip C. Tucker can be reached on 571-272-1095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael J Felton/
Examiner, Art Unit 1791

/Philip C Tucker/
Supervisory Patent Examiner, Art Unit 1791